CLAIMS

1. A filter for filtering a blood sample containing a blood cell component, comprising:

a channel for causing the blood sample to flow;

an opening for introducing the blood sample, the opening being located at one end of the channel; and

an opening for discharging the blood sample filtered through the channel, the opening being located at the other end of the channel,

wherein a plurality of structures are disposed in the channel to prevent the blood cell component from passing through the channel,

the structures are disposed at intervals such that a slit through which the blood cell component cannot pass is formed between each structure and an adjacent inner wall of the channel and between adjacent structures, and

the plurality of structures and the inner wall of the channel define at least one cavity functioning as a blood cell reservoir for accommodating the blood cell component in the channel.

2. The filter according to claim 1, wherein at least two cavities are defined in the channel.

3. The filter according to claim 1, wherein a depth of the

cavity is greater than a width of a mouth of the cavity.

4. The filter according to claim 1, wherein a width of a mouth of the cavity is in a range of about 2 μm to about 10 μm.

5. The filter according to claim 1, wherein the cavity is in a shape of substantially a rectangular parallelepiped.

6. The filter according to claim 1, wherein a width of the slit is in a range of about 0.1 μm to about 2 μm.

7. The filter according to claim 1, wherein the channel is formed by a substrate, a spacer, and a cover attached to the substrate via the spacer.

8. The filter according to claim 1, wherein the structure is in a shape of a column.

9. The filter according to claim 8, wherein the structure is in a shape of a cylinder.

10. The filter according to claim 1, wherein the blood sample is introduced into the channel by capillary action.

11. The filter according to claim 1, wherein the structure

and the inner wall of the channel are made of silicone resin, Teflon or epoxy resin, or surfaces of the structure and the inner wall of the channel are covered with any of silicone resin, Teflon and epoxy resin.

12. A biosensor having a filter region for filtering a blood sample containing a blood cell component, comprising:

a substrate;

a measuring system supported by the substrate;

a reagent system containing a redox enzyme supported by the measuring system or the substrate in the vicinity of the measuring system;

a cover combined with the substrate to define, between the cover and the substrate, a filter region for removing the blood cell component from the blood sample, a reaction region for accommodating the measuring system and the reagent system, and a sample introduction pathway connected to the filter region for introducing the sample to the reaction region,

the filter region is defined by:

a channel for causing the blood sample to flow;

an opening for introducing the blood sample, the opening being located at one end of the channel;

an opening for discharging the filtered blood sample, the opening being located at the other end of the channel and being connected to the sample introduction pathway; and

a plurality of structures disposed in the channel to prevent the blood cell component from passing through the channel,

the structures are disposed at intervals such that a slit through which the blood cell component cannot pass is formed between each structure and an adjacent inner wall of the channel or between adjacent structures, and

the plurality of structures and the inner wall of the channel define at least one cavity functioning as a blood cell reservoir for accommodating the blood cell component in the channel.

13. The biosensor according to claim 12, wherein the measuring system includes an electrode system comprising at least a pair of electrodes.

14. The biosensor according to claim 12, wherein at least two cavities are defined in the channel.

15. The biosensor according to claim 12, wherein a depth of the cavity is greater than a width of a mouth of the cavity.

16. The biosensor according to claim 12, wherein a width of a mouth of the cavity is in a range of about 2 μm to about 10 μm.

17. The biosensor according to claim 12, wherein the cavity is in a shape of substantially a rectangular parallelepiped.

18. The biosensor according to claim 12, wherein a width of the slit is in a range of about 0.1 μm to about 2 μm.

19. The biosensor according to claim 12, wherein the channel is formed by a substrate, a spacer, and a cover attached to the substrate via the spacer.

20. The biosensor according to claim 12, wherein the structure is in a shape of a column.

21. The biosensor according to claim 20, wherein the structure is in a shape of a cylinder.

22. The biosensor according to claim 12, wherein the blood sample is introduced into the channel by capillary action.

23. The biosensor according to claim 12, wherein the structure and the inner wall of the channel are made of silicone resin, Teflon or epoxy resin, or surfaces of the structure and the inner wall of the channel are covered with any of silicone resin, Teflon and epoxy resin.